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ABSTRACT

The decade of the 70's has seen significant improvements in child health and dramatic insights into the biological, psychological, and social factors influencing children's growth and development. Four of the six major gains in health status listed in the Surgeon General's Report on Health Promotion and Disease Prevention relate to improvements in the infant and child mortality rates and life expectancy. Current data show that this increased survival rate for infants is not achieved at the cost of higher rates of disabilities. Other problems related to infant well-being such as lack of prenatal care, poor prenatal nutrition, maternal age, and the use of drugs, alcohol or tobacco by pregnant women are amenable to preventive measures which are within our grasp at this time. Sudden Infant Death Syndrome and congenital defects are problems for which increased scientific knowledge is needed. During the last decade, several themes have emerged in the area of child development. First, the interactionalist position of development which emphasizes the interaction of heredity and environment has achieved widespread acceptance. Second, the mechanistic approach to development which postulates an invariable course of growth based on fixed characteristics of the infant and the irreversible consequences of early experience has been rejected. Third, it is no longer believed that the mother's behavior is solely responsible for children's emotional development. These changes have implications for future research and social policy. A Select Panel for the Promotion of Child Health in the Department of Health, Education, and Welfare has been created by Congressional legislation and charged with providing recommendations for a coordinated, comprehensive program that will ensure the integration of services to promote child health. (JMB)

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# A PERSPECTIVE ON PRIMARY PREVENTION IN THE EARLIEST YEARS

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FOR THE

INSTITUTE ON CLINICAL INFANT PROGRAMS OF THE NATIONAL CENTER FOR CLINICAL INFANT PROGRAMS

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"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
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THE DECADE OF THE 70' HAS BEEN AN ASTONISHING ONE FOR THOSE OF US CONCERNED WITH ISSUES AFFECTING CHILDREN'S PHYSICAL AND MENTAL HEALTH. NOT ONLY HAVE WE MADE IMPRESSIVE STRIDES IN SIGNIFICANTLY IMPROVING THE HEALTH OF THIS NATION'S CHILDREN BUT, AT THE SAME TIME, WE HAVE ACHIEVED DRAMATIC NEW INSIGHTS INTO THE BIOLOGICAL, PSYCHOLOGICAL AND SOCIAL FACTORS THAT INFLUENCE A CHILD'S GROWTH AND DEVELOPMENT. THIS MORNING I'D LIKE TO SPEND A FEW MINUTES LOOKING AT WHAT WE'VE ACHIEVED IN THE 70'S, AND THEN TO CONSIDER THE IMPLICATIONS OF THESE CHANGES FOR BOTH FUTURE RESEARCH AND SOCIAL POLICY IN THE COMING DECADE.

SIX MONTHS AGO THE DEPARTMENT OF HEW RELEASED THE SURGEON GENERAL'S REPORT ON HEALTH PROMOTION AND DISEASE PREVENTION.[1] THIS REPORT IS THE FIRST DOCUMENT OF ITS TYPE AND REPRESENTS AN ANALYSIS OF THE HEALTH STATUS OF THIS NATION'S PEOPLE. IT BEGINS WITH THE STATEMENT: "THE HEALTH OF THE AMERICAN PEOPLE HAS NEVER BEEN BETTER." THIS STATEMENT IS PERHAPS TRUEST FOR AMERICA'S CHILDREN. OF THE SIX MAJOR GAINS IN HEALTH STATUS WHICH HAVE OCCURRED WITHIN THE PAST FEW YEARS FOUR RELATE TO IMPROVEMENTS IN CHILD HEALTH:

- IN 1977, A RECORD LOW OF 14 INFANT DEATHS PER 1,000 PER LIVE BIRTHS WAS ACHIEVED.

- o BETWEEN 1960 AND 1975 THE DIFFERENCE IN INFANT MORTALITY RATES FOR NONWHITES AND WHITES WAS CUT IN HALF.
- o BETWEEN 1950 AND 1977 THE MORTALITY RATE FOR CHILDREN AGED ONE TO 14 WAS HALVED.
- o LARGELY AS A RESULT OF OUR SUCCESSFUL EFFORTS AT CONSERVING LIFE IN THE EARLY YEARS, A BABY BORN IN THIS COUNTRY TODAY CAN BE EXPECTED TO LIVE MORE THAN 73 YEARS, WHILE A BABY BORN IN 1900 COULD BE EXPECTED TO LIVE ONLY 47 YEARS.

FOR THIS, MUCH OF THE CREDIT MUST GO TO EARLIER EFFORTS OF PREVENTION. THESE EFFORTS REFLECT IMPROVEMENTS IN SUCH BASIC SOCIAL CONDITIONS AS HOUSING, NUTRITION AND SANITATION. CREDIT MUST ALSO BE GIVEN, TO THE VERY SIGNIFICANT ACHIEVEMENTS WE HAVE MADE IN THE MATERNAL AND INFANT HEALTH CARE THAT WE NOW PROVIDE.

FOR THOSE OF US WHO ARE CONCERNED WITH CHILDREN, THESE ARE HEARTENING STATISTICS. A CLOSER LOOK AT THE DATA IS EVEN MORE ENCOURAGING. THAT IS, 'UNLIKE WHAT MANY HAVE FEARED, THE DECLINE IN INFANT MORTALITY RATES HAS NOT BEEN ACCOMPANIED BY THE ANTICIPATED INCREASE IN MORBIDITY. IN PARTICULAR, IF WE LOOK AT THE RELATIONSHIP BETWEEN LOW

BIRTH WEIGHT AND SURVIVAL WE NOW FIND NOT ONLY A SIGNIFICANT INCREASE IN THE SURVIVAL OF LOW BIRTH WEIGHT INFANTS, BUT OF SURVIVAL WITH A RELATIVELY SMALL NUMBER OF DISABILITIES.

TO PUT THIS IN PERSPECTIVE IT IS INTERESTING TO LOOK AT DATA FROM THE COLLABORATIVE PERINATAL PROJECT COLLECTED ON INFANTS BORN TO OVER 58,000 WOMEN BETWEEN 1959 AND 1966. THIS STUDY TELLS US THAT IN THAT TIME PERIOD "ONLY 2 OF 45 BABIES UNDER 1,500 GRAMS WITH A DIAGNOSIS OF RESPIRATORY DISTRESS SYNDROME SURVIVED. WE NOW KNOW THAT APPROXIMATELY THREE QUARTERS OF SUCH BABIES SURVIVE...."[2]

THE QUESTION THEN HAS BEEN: SURVIVAL AT WHAT COST? THE TENTATIVE ANSWERS WE ARE GETTING ARE EXTREMELY ENCOURAGING. SPECIFICALLY, IN COMPARISON WITH WHAT WE SAW AS RECENTLY AS THE EARLY 1960'S--WHEN TWO OF EVERY THREE SURVIVING SMALL PREMATURE INFANTS HAD SEVERE AND PERMANENT MENTAL HANDICAPS--WE NOW HAVE DATA WHICH PRESENTS AN ENTIRELY DIFFERENT PICTURE.[3] ACCORDING TO A RECENT STUDY OF INFANTS WEIGHING 1,000 GRAMS OR LESS, WHO HAVE BEEN FOLLOWED FOR A PERIOD OF 15 MONTHS TO 8 YEARS, 78% OF THESE CHILDREN HAD NO ABNORMALITIES, 15% HAD MINOR HANDICAPS AND ONLY 7% HAD MAJOR HANDICAPS.[4]

ALONG THESE SAME LINES, IF WE LOOK AT THE INCIDENCE OF CEREBRAL PALSY IN THE UNITED STATES WE FIND EQUALLY ENCOURAGING FINDINGS. IN THE LAST DECADE THE INCIDENCE OF THIS PROBLEM HAS BEEN REDUCED BY SOME 50%. AND, EXPERTS PREDICT THAT A FURTHER REDUCTION OF 50 PERCENT OR MORE IS WITHIN OUR REACH.[5]

WHILE IT IS NOT POSSIBLE TO IDENTIFY ALL OF THE FACTORS RESPONSIBLE FOR THESE DRAMATIC CHANGES, THEY ARE SURELY ATTRIBUTABLE IN LARGE MEASURE TO ADVANCES IN BOTH OBSTETRICAL MANAGEMENT AND TO OUR SOPHISTICATED NEW TECHNIQUES OF PEDIATRIC CARE.

YET, THESE ACHIEVEMENTS IN IMPROVED HEALTH OF THIS NATION'S CHILDREN CANNOT BE VIEWED AS A JUSTIFICATION FOR COMPLACENCY. WE KNOW THAT WE CAN DO MORE. LOW BIRTH WEIGHT IS CLEARLY CORRELATED WITH LATE OR NO PRENATAL CARE, POOR NUTRITION, AND MATERNAL AGE. AND, AS WE ALL KNOW, THESE ARE NOT PROBLEMS THAT ARE RANDOMLY DISTRIBUTED IN THE POPULATION:

- IN 1977 47% OF BLACK WOMEN AS COMPARED TO 24% OF WHITE WOMEN DID NOT HAVE THE MINIMAL LEVEL OF CARE SUGGESTED BY THE AMERICAN COLLEGE OF OBSTETRICS AND GYNECOLOGY.[6] THE PREMATURITY AND LOW BIRTH WEIGHT FOR BLACKS IS TWICE AS HIGH AS FOR WHITES.[7]

- o Inadequate nutrition is related to low birth weight.[8] Diet supplementation programs for poor women produces statistical increases in infant birth weight.[9]
- o The incidence of low birth weight infants born to teenagers is about one and a half times the national average.[10]

Other maternal health hazards such as drugs, alcohol and smoking have also recently been clearly implicated as posing a significant threat to the fetus.

- o Heavy use of alcohol (about six drinks a day) by pregnant women has been shown to result in a characteristic set of abnormalities called the fetal alcohol syndrome.[11]
- o Women who smoke, double the risk of having a low birth weight baby. Further, smoking increases the risk of spontaneous abortion as well as the risk of neonatal death for the infant.[12]

Correction of these problems is not dependent upon the search for an elusive virus, nor upon the investment of astronomical sums of money. These are health problems

THAT ARE CLEARLY AMENABLE TO APPROPRIATE PREVENTIVE MEASURES THAT ARE WELL WITHIN OUR GRASP.

AT THE FEDERAL LEVEL I AM HOPEFUL THAT MANY OF THE NEW INITIATIVES WE HAVE BEEN WORKING ON TO IMPROVE THE DELIVERY OF HEALTH SERVICES FOR MOTHERS AND CHILDREN THROUGH OUR COMMUNITY HEALTH CENTERS, OUR NUTRITION PROGRAMS, OUR HEALTH EDUCATION EFFORTS, AND OUR ADOLESCENT PREGNANCY PROGRAM WILL ADDRESS THESE PROBLEMS AND LEAD TO A FURTHER SIGNIFICANT IMPROVEMENT IN INFANT HEALTH.

STILL OTHER ATTEMPTS TARGETED TOWARD THE PREVENTION OF INFANT MORTALITY AND MORBIDITY ARE BEING MADE IN OUR EFFORTS TO DEAL WITH THE SUDDEN INFANT DEATH SYNDROME AND THE PROBLEM OF CONGENITAL DEFECTS. SIDS IS THE LEADING CAUSE OF DEATH FOR INFANTS OLDER THAN ONE MONTH.[13] THE ELIMINATION OF SIDS COULD REDUCE THE INFANT MORTALITY RATES IN THIS COUNTRY BY 2 PER 1,000 LIVE BIRTHS.[14] ALTHOUGH PROGRESS HAS BEEN MADE IN ADDRESSING THIS PROBLEM, FURTHER RESEARCH AND DEMONSTRATION EFFORTS ARE NEEDED TO IDENTIFY HIGH RISK INFANTS AND TO EFFECTIVELY PREVENT AND TREAT THIS CONDITION.

CONGENITAL DEFECTS ARE THE SECOND LEADING CAUSE OF DEATH FOR INFANTS AND CHILDREN THROUGH FOUR YEARS OF AGE. APPROX-IMATELY 30 PERCENT OF THE CHILDREN IN HOSPITALS ARE THERE

BECAUSE OF GENETICALLY DETERMINED OR INFLUENCED DISORDERS.[15] ADVANCES IN GENETIC SCREENING AND COUNSELING OFFERS THE LIKELIHOOD OF PREVENTION. I AM HOPEFUL THAT AN INCREASED UNDERSTANDING OF THE GENETIC BASIS OF SOME OF THESE CONDITIONS MAY ULTIMATELY LEAD TO THEIR REDUCTION.

PREVENTION IS CLEARLY AN IDEA WHOSE TIME HAS COME. TODAY, WE HAVE AT OUR DISPOSAL A WEALTH OF NEW SCIENTIFIC KNOWLEDGE THAT ALLOWS US TO IDENTIFY AND PREVENT SOME OF THE MAJOR RISK FACTORS RESPONSIBLE FOR MOST OF THE PREMATURE MORBIDITY AND MORTALITY IN THIS COUNTRY. FOR THOSE OF US WHO HAVE LONG BEEN CONCERNED WITH CHILDREN'S PHYSICAL HEALTH THIS IS INDEED GOOD NEWS.

HOWEVER, I'D LIKE TO TURN NOW TO WHAT I VIEW AS EQUALLY GOOD NEWS IN ANOTHER AREA THAT AFFECTS CHILDREN'S MENTAL HEALTH AND WELL-BEING. I'M SPEAKING HERE OF THE IMPORTANT CHANGE THAT HAS TAKEN PLACE THIS PAST DECADE IN OUR THINKING ABOUT THE ESSENTIAL NATURE OF INFANT AND CHILD GROWTH AND DEVELOPMENT.

IN THE LAST THREE YEARS ALONE FIVE MAJOR BOOKS DEALING WITH RESEARCH RELATING TO INFANT DEVELOPMENT HAVE BEEN PUBLISHED: OSOFSKY'S <u>HANDBOOK OF INFANT DEVELOPMENT</u>;[16] THOMAS AND CHESS'S <u>TEMPERAMENT AND DEVELOPMENT</u>;[17] MCCALL'S <u>INFANTS</u>;[18] KAGAN'S TWO

BOOKS INFANCY AND THE GROWTH OF THE CHILD[19] AND, OF COURSE THE BOOK PUBLISHED BY THE GROUP SPONSORING THIS INSTITUTE ON CLINICAL INFANT INTERVENTION RESEARCH PROGRAMS.[20] THESE, OF COURSE, REPRESENT ONLY SOME OF THE MAJOR PUBLICATIONS THAT HAVE COME TO MY ATTENTION.

CLEARLY, THERE HAS BEEN AN EXTRAORDINARY INTEREST WITHIN THE PAST TEN YEARS IN HUMAN INFANTS. SIGNIFICANTLY, THIS INTEREST HAS LED TO THE EMERGENCE OF SEVERAL DOMINANT THEMES--THEMES WHICH POSE NEW CHALLENGES AND POSSIBILITIES FOR US IN OUR FUTURE THINKING ABOUT INFANT AND CHILD GROWTH AND DEVELOPMENT. I'D LIKE TO SPEND THE NEXT FEW MINUTES DISCUSSING THESE THEMES AND THEN CONCLUDE BY CONSIDERING THEIR IMPLICATIONS FOR FUTURE RESEARCH AND SOCIAL POLICY.

PERHAPS THE MOST SIGNIFICANT OF THESE THEMES IS THE ONE WHICH APPEARS TO PUT, AT LAST, THE OLD NATURE--NURTURE CONTROVERSY TO REST. IT NOW SEEMS EVIDENT THAT NEITHER THE HEREDITARIAN'S NOTION "IT'S ALL IN THE GENE'S" NOR THE ENVIRONMENTALIST'S APPROACH OF "TABULA RASA" WILL SUFFICE. RATHER, THERE APPEARS TO BE A WIDESPREAD ACCEPTANCE OF WHAT MAY BE REFERRED TO AS AN "INTERACTIONALIST'S" POSITION--A POSITION WHICH ATTEMPTS TO INTEGRATE BOTH THE HEREDITARIAN

AND THE ENVIRONMENTAL THEORIES BY EMPHASIZING THE INTERACTIONAL NATURE OF THE INDIVIDUAL'S RELATIONSHIP WITH THE ENVIRONMENT.

THIS POSITION ACKNOWLEDGES THE ROLE THAT AN INDIVIDUAL'S GENETIC HERITAGE PLAYS IN INFLUENCING BEHAVIOR, BUT IT ALSO RECOGNIZES THE IMPORTANCE OF ENVIRONMENTAL INFLUENCES. FURTHER, IT NOTES THE DIFFERENTIAL EFFECTS OF THE ENVIRONMENT ON A GIVEN INDIVIDUAL AT DIFFERENT POINTS IN HIS OR HER DEVELOPMENT. THERESA BENEDEK HAS DESCRIBED THE COMPLEXITY OF THE INTERACTIONS WHICH RESULT IN MAN'S PERSONALITY AND BEHAVIOR WHEN SHE STATED: "GROWTH, NEUROPHYSIOLOGIC MATURATION, AND PSYCHOSEXUAL DEVELOPMENT ARE INTRINSICALLY INTERWOVEN PROCESSES."[21]

BECAUSE THIS POSITION REPRESENTS, TO SOME DEGREE, A MOVE FROM THE ENVIRONMENTALIST POSITION THAT HAS FOR SO LONG BEEN PROMINENT IN AMERICA'S PSYCHOLOGICAL THINKING, TO A MORE BIOLOGICALLY ORIENTED STANCE, KAGAN HAS LIKENED THIS NEW ERA IN OUR THINKING TO A "RENAISSANCE OF BIOLOGICAL DETERMINISM"--A DEVELOPMENT THAT HE BELIEVES HAS OCCURRED "PARTLY /DUE/ TO THE ELEGANT METHODOLOGY AND EXCITING DISCOVERIES IN MICROBIOLOGY AND GENETICS, AND PARTLY TO THE PSYCHOLOGISTS' FAILURE TO DOCUMENT A STRONG RELATION BETWEEN MEASUREMENTS OF ENVIRONMENTAL EXPERIENCE AND BEHAVIORAL OUTCOMES."[22]

ALTHOUGH THE FIRST OF THESE EXPLANATIONS CERTAINLY HAS VALIDITY, I WOULD BE MORE INCLINED TO OBSERVE THAT THE MOVE TO ACKNOWLEDGE THE ROLE OF BIOLOGY IN AFFECTING BEHAVIOR WAS NOT DUE TO THE PSYCHOLOGISTS' FAILURE TO DOCUMENT A STRONG RELATIONSHIP BETWEEN ENVIRONMENTAL EXPERIENCES AND BEHAVIORAL OUTCOMES, BUT IS RATHER DUE TO THE FACT THAT, AS A RESULT OF THEIR MEASUREMENTS, THE BIOLOGICAL ROLE INFLUENCING BEHAVIORAL OUTCOMES BECAME CLEAR.

A SECOND THEME TO EMERGE IN THIS PAST DECADE IN OUR THEORIES OF INFANT AND CHILD DEVELOPMENT IS THE REJECTION OF A MECHANISTIC BELIEF IN DEVELOPMENT. THE POSTULATION WHICH ALLEGED AN INVARIABLE COURSE OF GROWTH, BASED ON FIXED CHARACTERISTICS OF THE INFANT, AND THE IRREVERSIBILITY OF THE CONSEQUENCES OF EARLY ENVIRONMENTAL EXPERIENCES ON LATER DEVELOPMENT IS NO LONGER VIABLE.

A GENERATION OF RESEARCHERS HAVE DEVOTED THEMSELVES TO WHAT SEEMS TO BE AN INFINITE NUMBER OF STUDIES AIMED AT THE EXPERIMENTAL DOCUMENTATION OF THE EFFECTS OF EARLY DEPRIVATION ON LATER DEVELOPMENT. VARIATIONS ON THIS THEME HAVE BEEN PLAYED IN STUDIES WHICH HAVE ATTEMPTED TO ISOLATE A PARTICULAR "CRITICAL PERIOD" HYPOTHESIS THAT SUGGESTS THAT THE YOUNG ORGANISM MUST BE EXPOSED TO CERTAIN EXPERIENCES

AT A PARTICULAR POINT IN TIME OR THEREAFTER SUFFER A PERMANENT DEFICIT. THE ETHOLOGISTS AND THEIR STUDIES OF IMPRINTING REPRESENT ANOTHER EFFORT TO SUBSTANTIATE THE THEME.

YET, THE LONGER PERIOD OF GROWTH FROM INFANCY TO ADULTHOOD THAT WE FIND IN HUMAN DEVELOPMENT CHALLENGES THE VALIDITY OF SUCH HYPOTHESES. THE RELATIVE SLOWNESS OF THE MATURATION OF THE CENTRAL NERVOUS SYSTEM MAY WELL BE A LEADING FACTOR IN MAN'S ULTIMATE DEVELOPMENTAL ATTAINMENTS. RECENT RESEARCH, AS WELL AS RESEARCH BASED ON LONGITUDINAL ANALYSIS OF EARLIER DATA, SEEMS TO REFUTE THE ACTUAL DETRIMENTAL CONSEQUENCES OF MOST NEGATIVE EARLY EXPERIENCES.

DATA FROM A NUMBER OF LONGITUDINAL STUDIES CONSISTENTLY REVEAL THAT (1) GROWTH DOES NOT OCCUR ACCORDING TO A FIXED PATTERN OF IMMUTABLE LAWS OF MATURATION AND (2) THAT EARLY NEGATIVE ENVIRONMENTAL EXPERIENCES DO NOT INVARIABLY HAVE DETRIMENTAL CONSEQUENCES FOR LATER ADULT BEHAVIOR. THE NEWER APPROACH TO THIS ISSUE IS ONE WHICH VIEWS THE DEVELOPING INFANT AND CHILD AS FAR MORE MALLEABLE AND RECEPTIVE TO THE BENEFICIAL EFFECTS OF NEW EXPERIENCES, THAT CONTINUE TO OCCUR THROUGHOUT LIFE, THAN WAS THOUGHT POSSIBLE A GENERATION AGO.

ACCEPTANCE OF THIS NEWER APPROACH NEED NOT MEAN A DENIGRATION OF THE SEMINAL STUDIES OF EARLIER SCIENTISTS. THEIR WORK WAS ORIGINAL AND HEURISTIC. IT FAILED ONLY IN NOT ACKNOWLEDGING THE COMPLEXITY AND MULTIPLICITY OF FACTORS AFFECTING DEVELOPMENT OVER TIME.

IT IS PRIMARILY AS A RESULT OF A NUMBER OF LONGITUDINAL STUDIES THAT THERE NOW SEEMS TO BE A GENERAL ACCEPTANCE OF THE POTENTIAL FOR WHAT KAGAN HAS TERMED THE "GROWTH TOWARD HEALTH."[23]

I THINK IT IS FAIR TO SAY THAT, THE MOST COMMONLY HELD BELIEF TODAY ON THIS ISSUE IS THE ONE EXPRESSED BY MCCLELLAND WHO OBSERVED: "IT IS DIFFICULT, IF NOT IMPOSSIBLE, TO FIND A HUMAN CHARACTERISTIC THAT CANNOT BE MODIFIED BY TRAINING OR EXPERIENCE...."[24] I MIGHT ADD THAT CERTAINLY THERE IS A REJECTION OF THOSE THEORISTS WHO STIPULATE: "IT'S ALL OVER AT AGE THREE."

PERHAPS THE SENTIMENT ON THIS IS BEST STATED BY ED ZIGLER WHO NOTED: "I, FOR ONE, AM TIRED OF THE PAST DECADES SCRAMBLE TO DISCOVER SOME MAGIC PERIOD DURING WHICH INTERVENTIONS WILL HAVE PARTICULARLY GREAT PAY-OFFS.... MY OWN PREDILECTION IS THAT WE CEASE THIS POINTLESS SEARCH FOR MAGIC PERIODS AND ADOPT INSTEAD THE VIEW THAT THE

DEVELOPMENTAL PROCESS IS A CONTINUOUS ONE, IN WHICH EVERY SEGMENT OF THE LIFE CYCLE FROM CONCEPTION THROUGH MATURITY IS OF CRUCIAL IMPORTANCE AND REQUIRES CERTAIN ENVIRONMENTAL NUTRIENTS".[25]

THE LAST THEME I WOULD LIKE TO NOTE IS ONE THAT IS CLOSELY RELATED TO BOTH OF THE PRECEDING THEMES. THIS THEME ACKNOWLEDGES THE INTERACTIONIST NATURE OF THE RELATIONSHIP BETWEEN THE INDIVIDUAL AND THE ENVIRONMENT, RECOGNIZES THE FLEXIBILITY OF THE HUMAN ORGANISM TO ADAPT TO CHANGING LIFE CIRCUMSTANCES, AND FOCUSES ON THE RELATIONSHIP BETWEEN THE INFANT AND ITS MOTHER. I KNOW THAT THIS THEME IS ONE THAT CAN CERTAINLY NOW BE FOUND IN THE RESEARCH EFFORTS SPONSORED BY THE NATIONAL CENTER FOR CLINICAL INFANT PROGRAMS.

IN LOOKING AT THE NATURE OF THE PARENT-INFANT INTERACTION, WITHIN THIS FRAMEWORK THE INFANT IS VIEWED AS POSSESSING CERTAIN UNIQUE TEMPERAMENTAL CHARACTERISTICS, AS WELL AS MANY COMPETENCIES. THESE CHARACTERISTICS AND COMPETENCIES ARE SEEN AS HAVING A DIRECT EFFECT ON THE NATURE OF THE MOTHER-CHILD RELATIONSHIP. THE SIGNIFICANT ELEMENT OF THIS THEME IS THAT THE MOTHER'S BEHAVIOR IS NO LONGER VIEWED AS BEING SOLELY RESPONSIBLE FOR THE CHILD'S EMOTIONAL

DEVELOPMENT. RATHER, THE UNIQUE INDIVIDUAL CAPACITIES OF THE INFANT ARE SEEN AS EXERTING A VERY DIRECT INFLUENCE ON THE MOTHER'S BEHAVIOR. NO LONGER DO WE FIND STUDIES CHARGING MOTHER'S WITH RESPONSIBILITY FOR THE MULTITUDE OF PSYCHOLOGICAL ILLS THAT MAY BESET AN INDIVIDUAL--ILLS I MIGHT ADD THAT HAVE RANGED FROM SUCH SERIOUS PROBLEMS AS SCHIZOPHRENIA AND AUTISM, TO JUVENILE DELINQUENCY, TO THE MORE COMMON NEUROTIC PROBLEMS CHARACTERIZED BY FEELINGS OF INADEQUACY AND GUILT. IN FACT, I'M FAIRLY CERTAIN THAT PORTNOY'S COMPLAINT, PHILIP ROTH'S CLASSIC STORY OF THE SMOTHERING AND DAMAGING CONSEQUENCES OF A JEWISH MOTHER'S BEHAVIOR, COULD ONLY HAVE BEEN WRITTEN BY SOMEONE WHO WAS A PRODUCT OF THAT EARLIER ERA--AN ERA WHICH HAD ACCEPTED THE BASIC PREMISE THAT, INDEED, IT IS PRECISELY THE RIGHT AMOUNT OF MOTHER'S LOVE, OR LACK THEREOF, THAT FOREVER DETERMINES THE QUALITY OF THE CHILD'S ADULT LIFE.

A COMMENT MADE BY THE PRESIDENT OF BARNARD COLLEGE IN THE 50'S SUCCINCTLY DESCRIBES THE DILEMMAS THESE PSYCHOLOGICAL THEORIES POSED FOR THE YOUNG MOTHER OF THAT TIME: SHE NOTED: "...ALL THE EXPERTS SEEM TO BE SAYING TO THEM: 'EVEN THE MOST INNOCENT APPEARING ACT OR A CARELESSLY SPOKEN WORD MAY HARM A CHILD OR DAMAGE HIS FUTURE HAPPINESS. YOU HURT THEM BY COMPARING THEM TO OTHER CHILDREN; YOU HURT THEM

BY NOT COMPARING THEM AND PRAISING THEM FOR BEING SPECIAL; YOU HURT THEM BY BEING TOO AFFECTIONATE TO THEM AND BY NOT BEING AFFECTIONATE ENOUGH.'"[26]

WE ARE NOW A GENERATION AWAY FROM SUCH THINKING. TODAY'S YOUNG PARENTS SURELY HAVE THEIR OWN CONCERNS, BUT IT IS UNLIKELY THAT THEY WILL REFLECT THE SAME LEVEL OF WORRY ABOUT THEIR ACTIONS WITH THEIR CHILDREN THAT CHARACTERIZED THEIR PARENTS' BEHAVIOR.

THE QUESTION TO BE ASKED AT THIS POINT SEEMS TO BE: "HOW DO THESE CHANGES AFFECT OUR FUTURE THINKING ABOUT INFANT AND CHILD GROWTH AND DEVELOPMENT? WHAT DO THEY MEAN FOR OUR RESEARCH EFFORTS? WHAT DO THEY MEAN FOR OUR SERVICE PROGRAMS? WHAT DO THEY MEAN FOR OUR LONG-RANGE EFFORTS AT HEALTH PROMOTION AND DISEASE PREVENTION?

BEFORE CONSIDERING THESE QUESTIONS I WOULD LIKE TO MAKE A FEW GENERAL OBSERVATIONS: I BELIEVE THAT THE COMING DECADE OFFERS MORE POTENTIAL OPPORTUNITY FOR THE PRIMARY PREVENTION OF CHILDREN'S PHYSICAL AND MENTAL HEALTH PROBLEMS THAN ANY PERIOD WE HAVE EVER KNOWN. WITH RESPECT TO INFANT HEALTH WE ARE NOW ABLE TO IDENTIFY CAUSES FOR MOST OF THE MAIN HEALTH PROBLEMS THAT POSE A THREAT TO THEIR WELL-BEING. AND, AS I NOTED EARLIER, THEY ALMOST ALL

REPRESENT PROBLEMS THAT ARE WELL WITHIN OUR ABILITY IN SOME INSTANCES TO CORRECT OR, IN OTHERS, TO MODIFY.

TODAY, AS A RESULT OF OUR SUCCESS IN OVERCOMING SO MANY OF THE PROBLEMS THAT THREATEN CHILDREN'S PHYSICAL HEALTH, IT IS EXTREMELY ENCOURAGING TO SEE THAT WE ARE NOW MOVING TO DEAL IN A MORE CONCERTED MANNER WITH DEVELOPMENTAL PROBLEMS. AND, I AM OPTIMISTIC ABOUT OUR ABILITY TO DEVELOP STRATEGIES IN THE AREA OF PRIMARY PREVENTION TO ADDRESS THE PSYCHOSOCIAL PROBLEMS OF CHILDREN'S GROWTH AND DEVELOPMENT.

WE FACE THIS COMING DECADE WITH A NEW UNDERSTANDING ABOUT THE PLASTICITY AND FLEXIBILITY OF THE DEVELOPING INFANT. WE NOW KNOW THAT IT IS, IN FACT, POSSIBLE TO OVERCOME THE NEGATIVE EARLY EXPERIENCES THAT SOME CHILDREN SUFFER. WE ALSO KNOW THAT AS EACH SUCCESSIVE STAGE OF THE LIFE CYCLE UNFOLDS THERE CONTINUES TO BE THE POSSIBILITY FOR A "GROWTH TOWARD HEALTH."

ON A MORE SPECIFIC LEVEL, IN RESPONSE TO THE QUESTIONS I JUST RAISED, IT SEEMS THAT BY BREAKING AWAY FROM THE MORE RESTRICTIVE NOTIONS OF GROWTH AND DEVELOPMENT WE OPEN ALL SORTS OF DOORS TO NEW RESEARCH ISSUES -

- o ISSUES THAT CONSIDER THE NATURE OF THE INFANT'S PLASTICITY FROM A NEUROPHYSIOLOGICAL PERSPECTIVE, AS WELL AS FROM A SOCIAL AND ENVIRONMENTAL PERSPECTIVE.
- o ISSUES THAT IDENTIFY THE MOST BENEFICIAL TYPES OF INTERVENTION AND,
- o ISSUES THAT ASSESS THE DYNAMICS THAT INFLUENCE THE NATURE OF THE MOTHER-CHILD INTERACTION.

WE ALSO NEED TO KNOW MORE ABOUT WHAT KINDS OF HEALTH EDUCATION AND PARENT EDUCATION PROGRAMS WORK AND WHY. IN OUR SERVICE DELIVERY PROGRAMS WE NEED TO DEVELOP PROGRAMS THAT ARE ABLE TO BRING IN THOSE MOTHERS AND CHILDREN WHO ARE MOST IN NEED OF CARE. AND, WE NEED TO KNOW NOT ONLY HOW TO BRING THEM IN BUT, EQUALLY IMPORTANT, HOW TO INSURE THAT THEY CONTINUE COMING.

ASKING NEW QUESTIONS WILL SURELY GIVE RISE TO EVEN MORE NEW QUESTIONS. BUT KNOWING WHAT KINDS OF QUESTIONS TO ASK IS A STEP IN THE RIGHT DIRECTION. THE NATIONAL CENTER FOR CLINICAL INFANT PROGRAMS IS ASKING THE RIGHT QUESTIONS, AND HELPING TO LEAD THE WAY IN FURTHERING OUR ABILITY TO ANSWER THESE QUESTIONS.

Some critics have charged this nation with not caring for its children. Yet, a look at federally and locally sponsored programs to promote children's health and well-being surely seems to refute such charges: From Title V's Maternal and Child Health Program in the Social Security Act of 1936; to the Maternity and Infant Children and Youth, Head Start, Early Periodic Screening, Diagnosis and Treatment Program, and the Community Health Centers of the 60's; to the establishment of the National Institute of Child Health and Human Development, the Adolescent Pregnancy Program, and the Developmental Disabilities, and Education for all Handicapped Children Acts of the 70's, we have progressively moved to insure care for all groups of this nation's children.

The more recent concern with these programs, however, is that they are too fragmented and they don't reach all children. In response to this concern Congressional legislation recently established a Select Panel for the Promotion of Child Health in the Department of Health, Education, and Welfare. This 17 person Panel includes representatives from HEW, as well as outstanding national leaders concerned with issues relating to children. The Panel is charged with providing recommendations for a

COORDINATED COMPREHENSIVE PROGRAM THAT WILL ENSURE THE INTEGRATION OF SERVICES TO PROMOTE CHILDREN'S PHYSICAL AND MENTAL HEALTH. IT IS EXPECTED THAT ITS FINAL REPORT WILL BE COMPLETED BY SEPTEMBER 1980.

I HAVE A VERY PERSONAL INTEREST IN THIS PANEL NOT ONLY BECAUSE OF MY LIFELONG PROFESSIONAL INTERESTS IN THIS AREA, BUT BECAUSE I ALSO SIT AS ONE OF ITS MEMBERS. AND, I DO NOT BELIEVE IT INAPPROPRIATE TO SAY THAT I AM EXTREMELY OPTIMISTIC ABOUT THE IMPORTANT IMPACT I BELIEVE THE CHILD HEALTH PANEL'S REPORT WILL HAVE ON THE WAY THIS NATION WILL ACT IN CONTINUING AND EXTENDING ITS EFFORTS TO MEET THE NEEDS OF ITS CHILDREN.

I SEE MANY REASONS FOR OPTIMISM ABOUT OUR WILLINGNESS AND ABILITY TO ADDRESS THE CHILD DEVELOPMENT PROBLEMS AND NEEDS THAT WE FACE IN THE LAST DECADES OF THE TWENTIETH CENTURY. WE ARE WILLING TO ACKNOWLEDGE THAT PROGRESS IN CHILD HEALTH IS THE CAUSE FOR RENEWED AND EXPANDED EFFORT, NOT FOR COMPLACENCY.

WE HAVE CONQUERED THE COMMUNICABLE DISEASES THAT ONCE POSED SUCH A SERIOUS THREAT TO OUR CHILDREN. WE ARE NOW ABLE TO ADDRESS, WITH RENEWED ENERGY AND COMMITMENT MANY OF THE OTHER PROBLEMS THAT STILL THREATEN THE WELL BEING OF THIS NATION'S CHILDREN. CONFERENCES SUCH AS THIS TODAY HELP TO MOVE US FURTHER IN OUR EFFORTS TO CONQUER THESE PROBLEMS.

THE UNMET NEEDS OF OUR COUNTRY ARE BIG ENOUGH TO DEMAND THE BEST THAT ALL OF US CAN BRING TO BEAR. AND IN THE MOST AFFLUENT NATION ON EARTH, WE CAN DO NOTHING LESS THAN COMMIT OURSELVES WHOLLY TO THE UNFINISHED BUSINESS THAT WILL SO CLEARLY AFFECT THE FUTURE OF OUR PEOPLE AND OUR NATION. AND IT IS MOST APPROPRIATE THAT WE FOCUS ON THE BEGINNING--BY GETTING OUR INFANTS OFF TO A GOOD START.

THANK YOU VERY MUCH.

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